
Medicine's Role in Health Care Cost Containment

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During the 20th century, medicine has confronted a series of problems threatening health care delivery in the United States. Historically, crises developed related first to quality of care, later to access and finally to the current issue of cost. Factors responsible for the large increases in health care expenditures in the United States during the last decade include increased medical care costs, population and demand for care. Additionally, economy-wide inflation, advanced medical technologies, an aging population, the growth of health care facilities, expansion of third-party payment systems including Medicare and Medicaid and rising incomes per capita have occurred. Programs now exist, and others are being planned, through which physicians, individually in private practice and collectively through organized medicine, may confront this major challenge now threatening the very foundations of health care delivery in the United States.

DURING THE PAST DECADE, major public attitudes toward the American medical care system have shifted dramatically. In the era following World War II, the predominant emphasis was on improving access for all Americans to quality health care. However, when asked what they considered to be the major problem facing medicine in the

United States today, a large majority of public respondents cited cost-related issues.¹ This concern is not unique to the public; the cost issue now dominates *physician* attitudes toward medical care as well.²

As a result of this increased attention, the recurrent question from all sectors of the health system is simply "What is to be done?" The purpose of this paper, therefore, is to address methods whereby the individual physician and organized medicine as a whole can confront the cost problem. The emphasis is on programs designed to (1) reduce rates of increase in the price of various resources combined to produce medical care and (2) slow the rate of increase in the quantities and types of care demanded by patients.

Initially, the background of the cost issue is examined. After a historical perspective is developed, various causes of spiraling costs are identified. Finally, specific strategies for reducing medical expenditures are presented and discussed. These include initiatives currently in operation, as well as programs now under discussion that offer promise for the future.

Historical Background

In recent years, much has been written concerning the quality-access-cost triad in the American medical care system. It has become clear that each of these three issues must be considered in the context of the two remaining elements. In historical perspective, however, the relative emphasis on each of the three components has changed substantially during the 20th century.

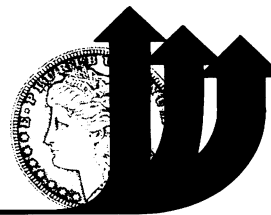
Quality

At the turn of the century the *quality* of medical care delivered in the United States was of primary concern to the nation in general and to

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organized medicine in particular. This increased attention to the quality of medical care was in direct response to the pervasiveness of incompetent practitioners who purchased medical degrees from unaccredited medical education programs. It was during these early years that medicine took major steps toward formalizing the medical education process and standardizing the quality of care delivered. Many of the American Medical Association's (AMA) current activities in professional review and accreditation may be traced directly to this era.

Access

Following World War II there was an increasing emphasis on *access* as a potential problem in the health care system. Initiatives from a wide range of sources were directed at expanding the supply of health care facilities. As a result of both public and private mechanisms, access to care improved dramatically during the postwar period. For example, between 1948 and 1971 the Hill-Burton Act provided 30 percent of the total funds spent for hospital modernization and construction.³ The increase in the number of nonfederal, short-term general hospital beds from 330 beds per 100,000 population in 1950 to 450 per 100,000 in 1977 is largely attributable to this program.⁴

During the early 1960's, the federal government, with encouragement from organized medicine, significantly increased its financial support of medical education. The number of medical schools increased from 79 in 1950 to 122 in 1978; the number of medical graduates rose from 6,135 to 14,393 over the same period.⁵ This increased emphasis on the education of health professionals was responsible, in part, for a rise in the number of physicians per 100,000 population from 144 in 1950 to 201 per 100,000 population in 1978.⁶

In addition to the availability of sufficient resources to provide adequate levels of care, access depends upon the public's ability to pay for needed care without suffering severe financial strain. In response to this need a major expansion of private and public insurance programs for financing medical care developed during this period. According to the Department of Health, Education and Welfare's Health Care Financing Administration, "third parties" paid 67 percent of all personal health care services in 1978, compared with 35 percent in 1950. Medicare and Medicaid, in 1978, financed over \$44 billion, or

approximately 26 percent of all personal health care.⁷ The fact that by 1973 members of low income families were using more physician visits per person per year and more hospital care than members of middle and high income families provides additional evidence of progress toward removing barriers to health care.⁸

The level of certain health indicators rose concomitantly with these major increases in care accessibility during the postwar period. The expectation of life at birth rose from 68.2 years in 1950 to 72.8 years in 1976. In 1950 for each 1,000 live births 29 infants failed to survive to one year of age. However, by 1978 infant mortality dropped to less than 14 deaths per 1,000 live births.^{9,10} During these same three decades, treatments were discovered that all but eliminated poliomyelitis, tuberculosis and smallpox.

Cost

In the last five years the emphasis on problems of access has rapidly given way to major concerns about the *cost* of medical care. In one sense the very existence of the cost problem is a reflection of success in removing barriers to care access. However, it is now clear that the magnitude of the cost issue may threaten many of the earlier gains that resulted from constructing a system that provides quality health care to the American population.

Briefly, the magnitude of the cost problem can be described as follows. The Health Care Financing Administration reported that in 1978 total United States health care expenditures equaled \$192.4 billion, an increase of more than 1,400 percent from the \$12.7 billion dollar spending level in 1950. Health care consumed 9.1 percent of the United States gross national product (GNP) in 1978, compared with only 4.5 percent in 1950.⁴

If left unchecked at the current rate of increase, health care expenditures would consume approximately 13.1 percent of the gross national product in 1990. Current and projected levels of expenditures on health care clearly warrant careful analysis of the factors responsible for this cost spiral and the development of strategies designed to reduce medical costs to a socially acceptable level.

Factors Contributing to the Medical Care Cost Increase

Table 1 breaks down the 1950-1978 increase in total United States health care expenditures

into three components: (1) increases in the price of medical care delivered, (2) increases in the population and (3) increases in the quantity and type of care delivered per capita.⁴

Medical Care Prices

The increase in medical care prices is clearly the most important factor, accounting for 59.3 percent of the total increase in health expenditures. More than half of this price increase, however, is attributable to the general rate of inflation during the same period. In fact, evidence suggests that the costs of goods and services used by health care facilities and physicians to produce health care services generally increased more rapidly than the overall measure of the price of consumer goods, the Consumer Price Index (CPI).

Population Growth

As indicated in Table 1, growth in the United States population, per se, during the 1950-1978 period accounts for only approximately 10 percent of the increase in the country's health expenditures. However, changes in the *composition* of the United States population over time have influenced substantially the demand per person for both the quantity and type of medical services delivered.

The Demand for Medical Care

Table 1 indicates that a substantial proportion of the increase in health expenditures (31.1 percent) is explained by increased demand per person in the quantity and type of services purchased by patients. A number of factors underlies this increase in per capita demand for health care services. These include changes in the composition of the country's population, a trend toward increased use of hospital care, the public's in-

creasing perception of health care needs, growing household incomes and the growth of health insurance coverage. Additionally, demand increased due to the development of sophisticated procedures and treatments stemming from new advances in medical technology which made previously untreatable illnesses treatable.

In terms of shifting population composition, the United States population has aged considerably during the last three decades. In 1950 persons 65 and older constituted 8.1 percent of the population; in 1978 this group made up 11.0 percent of the population.¹¹ Because elderly persons use substantially more hospital days per person than others, this population change affects the demand for medical services and, therefore, health care expenditures.¹²

Increased per capita health care spending is not distributed equally among various health care services and commodities. For example, in 1950 physicians' services accounted for 21.7 percent of each health care dollar; by 1978 the physicians' services share had fallen to 18.3 percent. Concomitantly, hospital care rose from approximately 30 percent to almost 40 percent of the total during the same period.⁷

This shift in the relative allocation of health care dollars reflects a general trend toward increased demand for hospital services, as measured by days-of-care per 1,000 population, although recently this increase has slowed. Conversely, the number of visits to physicians' offices, per person per year, has remained relatively stable during the last 15 years. This change has had major impact on total health expenditures because of the high relative cost of hospital inputs in care delivery.

Insurance and other health care financing mechanisms also influenced the type and quantity

TABLE 1.—Factors Contributing to the Increase in Personal Health Expenditures in the U.S. for Selected Calendar Years: 1950-1978*

Sources of Increase	In Billions of Dollars (Percentage Distribution Shown in Parentheses)				
	1950-65	1965-71	1971-74	1974-78	1950-78†
Medical care prices‡	10.9 (41.5)	19.0 (54.7)	13.6 (47.3)	49.6 (74.0)	93.1 (59.3)
Population§	5.3 (20.0)	3.3 (9.5)	2.1 (7.2)	4.4 (6.5)	15.1 (9.6)
Quantity and quality increase (per capita)	10.2 (38.5)	12.5 (35.8)	13.1 (45.5)	13.1 (19.5)	48.9 (31.1)
TOTAL¶	26.4 (100.0)	34.8 (100.0)	28.8 (100.0)	67.1 (100.0)	157.1 (100.0)

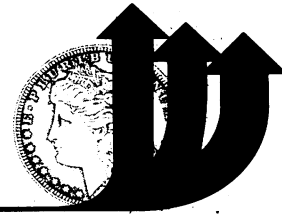
*Source: Center for Health Services Research and Development, American Medical Association, Chicago.

†For the entire period, 1950-1978, the dollar increase is the sum of the increases for the interim periods.

‡Prices are consumer price indexes (CPI-U) with 1967=100.

§Population is total population in the United States and possessions including armed forces and federal civilian employees overseas and their dependents, in millions (Source: Gibson RM⁷).

¶Total refers to changes in total personal health care expenditures for the indicated calendar years (Source: Gibson RM⁷).



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of health care demanded. Whereas total per capita personal health care spending increased over tenfold between 1950 and 1978, direct or *out-of-pocket* expenses rose only five times during that period.⁷ Thus, to a certain extent, insurance shielded consumers from feeling the full economic effect of increased health care spending. Indeed, it has been argued that because insurance reduces the out-of-pocket costs of health care, it increases patient demand for medical services.

Insurance mechanisms also influence the nature and the price of the services utilized. Third-party coverage traditionally has been most complete for care rendered in hospitals. For example, in 1978 third parties paid over 90 percent of the nation's total hospital bill, but covered only 66 percent of expenditures for physicians' services.⁷ This coverage encourages the use of relatively cost-intensive institutional care. It has also been suggested that hospital price increases are related to third-party payors' use of cost-based reimbursement to institutional providers.

In summary, the major components accounting for recent increases in total health expenditures in the United States are increases in the price of medical inputs and increases in the quantity and type of care delivered. Each of these components may potentially be influenced by the individual physician in daily practice and by organized medicine through policy and program formulation. However, it must be emphasized that the success of any cost-containment strategy, given the complexity of this issue, will require concerted effort and extensive cooperation from many sectors influencing health care delivery. Further, it is the professional responsibility of physicians, individually and collectively, to ensure that any cost-containment program will maintain both the quality of and access to care delivered.

Strategies for Containing Medical Care Costs

Due to an increasing awareness of the cost issue, the American Medical Association realized the need for a coherent and unified framework within which to structure cost-containment activities. In 1975 the National Commission on the Cost of Medical Care was impaneled by the AMA for this express purpose. This independent commission, composed of persons from the full spectrum of groups interested in health care, developed a comprehensive report which continues, at present, to have a major impact on the policies of organized medicine. The full content of this re-

port is discussed elsewhere and will not be recounted here except as it pertains specifically to input price and demand containment.¹³ However, it is important to note that major portions of the Commission's activity involved an extensive fact-finding effort which now provides the foundation for a wide range of cost-containment programs.

After 18 months of deliberation, the Commission issued an extensive report which contained 48 recommendations for initiatives designed to confront the cost problem. These recommendations are categorized into four general areas: (1) marketplace for medical care, (2) demand for care, (3) supply of medical services and (4) technology.

The Commission examined two basic approaches for confronting the health care cost issue: strengthening price consciousness and increasing use of public-utility type regulation. After considerable debate, the Commission came to believe that an approach that coupled increased competition in the health care sector with voluntary restraints based on provider and patient understanding would have the greatest success in slowing the cost spiral.

The Commission represented a significant development for two reasons: (1) it focused physician attention on the need for health care cost awareness and (2) it also emphasized the need for a broad coalition of interested parties to develop and implement cost-containment strategies. Many of organized medicine's present cost-containment programs directed at input price control reflect the work of this influential body.

Programs to Contain Input Prices

The major component of the large increase in total health expenditures in the United States during the last two decades has been the increased price of medical inputs delivered. Therefore, cost-containment strategies should include methods through which individual physicians and organized medicine can influence the price of medical inputs.

Voluntary Fee Restraint

Discussion of input price control invariably leads to the issue of physicians' fees. Public groups, business leaders and government agencies are often quick to criticize physicians and organized medicine for failure to moderate fees. However, the record on this issue is clear.

The AMA has encouraged and supported the

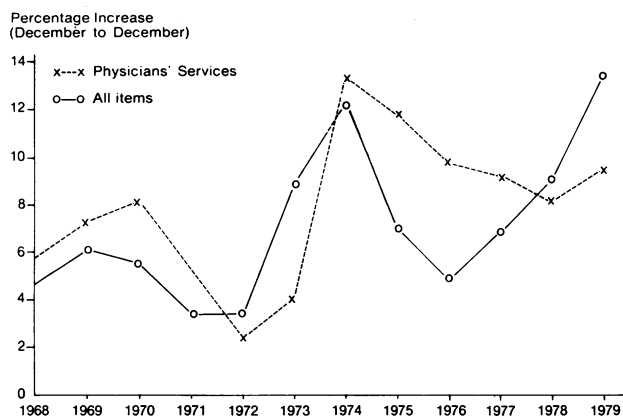


Figure 1.—Percentage increase in all-items and physicians' services components of the Consumer Price Index, 1968 to 1979 (source: Bureau of Labor Statistics).

successful effort of individual physicians to moderate their fee increases. The Association strongly supports a policy, reaffirmed by the immediate past president of the AMA, Tom E. Nesbitt, MD, calling for voluntary fee restraint. In 1978, CPI data indicated that physicians' fees rose 8.1 percent, compared with a 9.0 percent increase in the all-items index.¹⁴ In 1979 all items rose 13.3 percent; by comparison, however, the index for physicians' services increased only 9.4 percent (see Figure 1).

Figure 1 also indicates that between 1973 and 1978 the price of physicians' services increased at a rate higher than that for the all-items CPI component. However, this comparison is misleading if the trend in physicians' office *expenses* is not also considered. Despite a relatively stable volume of visits produced by the average physician per year, practice expenses increased 87 percent between 1970 and 1977, while the CPI all-items index rose only 56 percent during the same period.¹⁵

This suggests strongly that even during periods when the price of physicians' services increased more rapidly than the CPI, these increases were not generating higher net incomes for physicians. Rather, they appear to reflect adjustments in price caused by increased practice expenses. Data collected by the AMA's Center for Health Services Research and Development support this position. The data show a 5.8 percent annual increase in physicians' average net income from medical practice between 1968 and 1978. During the same period, the all-items index of the CPI rose an average of 6.5 percent annually. As a result, the typical physician's *real income*, or

purchasing power, declined 0.67 percent per year, on average, from 1968 to 1978. (Trends in Physicians' Fees, Patient Visits, and Physician Income. Unpublished data, AMA, Center for Health Services Research and Development, 1979.)

In perspective, it appears that individual physicians have responded and will continue to respond to the call from organized medicine to voluntarily restrain fee increases in a direct attempt to slow rising health care costs.

The Voluntary Effort

Another major program to contain increases in medical input prices involves a number of organizations. In November 1977 the American Medical Association, together with the American Hospital Association and the Federation of American Hospitals, initiated the Voluntary Effort for Health Care Cost Containment (VE). Since that time, organizations representing health care manufacturers, insurers, business, local government and consumers have joined this effort to control medical costs. The VE's goals include a reduction in the annual rate of increase in total community hospital expenses; a narrowing of the difference between the rates of increase of community hospital expenses and the GNP; and further moderation in the rate of increase in the prices of physician and other health care services relative to the rate of increase in the CPI.

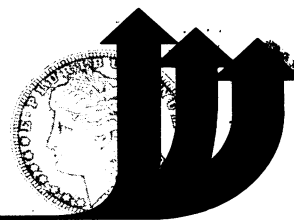
The evidence, thus far, supports progress by the VE toward meeting these goals and offers promise for the viability of voluntary sector initiatives as effective cost-containment programs.

The National Commission on the Cost of Medical Care

A third major thrust from organized medicine to generate strategies designed to contain medical input costs is reflected by recommendations of the National Commission on the Cost of Medical Care (NCCMC). These included (1) sharing by physicians of diagnostic findings, (2) strengthened support for peer review of care delivered and fees charged and (3) development of programs to reduce malpractice insurance premiums and thereby reduce fees for medical procedures.

Additional Programs

The AMA has developed and widely disseminated a variety of materials designed to aid physicians in monitoring and evaluating their own fees and expenses in individual practices. For



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example, the AMA's Center for Health Services Research and Development publishes a monthly *CPI Report* which is distributed to executives of state, local and specialty societies, and which is available upon request from the Center. This report provides timely analyses of the prices of physician and other health care services in relation to prices in other segments in the economy. The Center also annually surveys a sample of office-based physicians concerning their practice patterns, professional expenses, incomes and fees. Information from this survey is published in the Center's annual publication, *Profile of Medical Practice*. In addition, the AMA developed and disseminated to 335,000 physicians a simple technical assistance guide designed to teach physicians how to monitor changes in their own fees and expenses.

The above discussion of programs designed to contain medical input price increases is not intended to be exhaustive. Rather, its purpose has been to highlight the major types of strategies being developed in this critical area.

Programs to Contain Increased Demand for Medical Services

The second major component of the medical cost problem, increased demand, has generated intensive discussion in recent months. The controversy concerns the extent to which individual physicians influence patients' decisions to seek medical care. In strict terms, physicians' services constitute only 18 percent of total national health care spending, and only 21 percent of personal health care spending.⁷ Thus, there is a real limit to the impact on total health care costs which can be realized simply by physicians limiting their practice expenses. It has been suggested, however, that physicians greatly influence the type, quality and quantity of most health care services a patient receives, and, therefore, actually control 70 percent to 80 percent of personal health care expenditures. (*Trends in Physicians' Fees, Patient Visits, and Physician Income*. Unpublished data, Chicago, Center for Health Services and Development, AMA, 1979.)

Cost-consciousness Among Physicians and Patients

Clearly, the extent of any physician's influence varies greatly from patient to patient and according to case severity. The fact that, on average, physicians influence between 21 percent and 80

percent of total health expenditures should not detract from the essential point that *physicians and patients together determine the quantity and type of care delivered and therefore both groups must become more cost-conscious for any program to be successful in controlling total health expenditures*. It is for this reason that organized medicine has developed and is currently exploring strategies designed to educate physicians and the public on the cost impact of various medical treatments.

Physician and Public Educational Programs

In this regard, the National Commission on the Cost of Medical Care, described earlier, called for intensive efforts to develop public health education programs and to make physician information available in the form of easily obtained regional physician and hospital directories.

Programs to create and expand courses and seminars on the socioeconomics of medical practice in both undergraduate and graduate institutions have also gained a wide range of support from organized medicine as well as other groups in the health care sector. These efforts should generate a greater understanding of the relationship between treatment and cost among physicians.

The Importance of Out-of-pocket Costs

Education, in isolation, cannot be expected to slow demand for medical services if current financial incentives are not restructured. Even informed patients, when there are no out-of-pocket costs, have incentives to increase demand for care unnecessarily. It is for this reason that insurance arrangements which reintroduce cost sharing on a limited basis have been suggested as potential strategies for general cost-containment. These include both co-insurance and deductible arrangements which protect patients from catastrophic illness but require some out-of-pocket payment for less severe episodes.

While patient participation in the financing of health care is desirable, extreme care must be taken to avoid structuring incentives for either physicians or patients which unduly limit access to needed medical care. Nor should physicians practice medicine from a cost-minimization viewpoint. Medical care should be demanded by patients and delivered by physicians with an adequate understanding of cost consequences. Educational programs for both consumers and

providers of care similar to those advocated by the National Commission on the Cost of Medical Care will provide major impetus toward this goal. In addition, the restructuring of financing arrangements to include some direct out-of-pocket costs, while retaining strong catastrophic coverage, should reduce unnecessary physician visits and thus have a positive effect on cost reduction.

Conclusion

The 20th century has witnessed a major evolution of medical care delivery in the United States. The historical record shows medicine's ability to confront pressing problems and resolve them successfully. Initially, extensive efforts were directed toward improving the quality of care delivered; later, this focus shifted to the expansion of access to care for all Americans. However, the challenge of the cost problem is greater than any preceding it. Physicians, individually as well as collectively through organized medicine, must respond quickly and successfully to this challenge or risk the loss of freedoms within which medical care has always been delivered in the United States. The problem is complex, as must be its solutions. However, through strong

leadership and reasoned initiative, the medical profession must once again show its willingness to confront this major crisis in health care.

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